

4 Results

4.1 Stakeholders, Needs & Issues By County

This section of the document contains the results from the information-gathering process within each county. **Important Note:** In many of the meetings held in individual counties, there were issues brought up which are not consortium issues, or issues that can or should be addressed at the consortium level. These concerns have all been documented in the meeting minutes from those meetings (which all appear in an appendix to this document), but they may not be repeated or documented in this section. The concentration in this document was on items relevant to and addressable by the consortium.

Appendix D – Radio Inventory Summary contains a detailed listing of the radio inventories of those agencies who answered questionnaires. If questionnaires were not answered, there may not be an entry for those agencies. The one notable exception is Fallon County, where Chuck Lee sent the Project Manager a good deal of information about radios in that county.



4.1.5 Custer County

County Representative: Jim Zabrocki, County DES Coordinator. 406-951-3490

Number Of County Stakeholder Questionnaires Returned: 7 Number Of County Agencies Represented By Questionnaires: 7

4.1.5.1 County Interactions

The following matrix details the major stakeholders in the county and how they interact with each other.

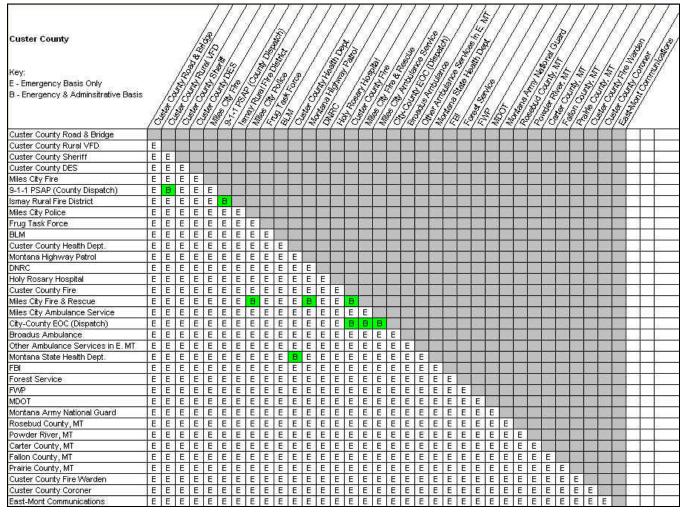


Figure 5 – Communication Interactions, Custer County

4.1.5.2 Questionnaire Results

Custer County Fire

Date of Interview or Survey Completion:

Location of Agency:

2800 Main, Miles City, MT 59301

Person Present And Agencies/Entities Represented:

Custer County Fire Dept.

Questions

1. Number of Channels? Simplex or Duplex?

12 – All simplex.

2. List the frequencies your agency currently uses and how each is used.

154.445 – Fire Dispatch & Base to Mobile

154.070 – Fire Mutual Aid, Mobile to Mobile

151.175 – DNRC to Mobile, Mobile to Mobile

155.280 – Mobile to Ambulance Service

3. Coverage

A. Approximately what percentage of your jurisdictional area is adequately covered?

60%

B. How acceptable is that coverage?

Not acceptable.

C. If unacceptable, why (Severe terrain, Gaps, Antenna Patterns, In-building Problems, etc.)?

Terrain, Gaps, Size of the county.

D. If acceptable, would an improvement still be desired? Why?





Not answered.

E. Do you have mobile-to-mobile coverage countywide? No If not, do you need it?

Yes, we need to have countywide for wildland fire coverage.

4. Current Loading

A. Number of Mobile Units:

18-20

B. Number of Portable Unit:

Approx. 35

5. Any units currently P25 capable/enabled? Which ones?

No.

6. Dispatch

A. How is dispatch conducted?

Custer County EOC to Miles City Fire.

B. From where?

County Courthouse.

C. Hardware Used?

Zetron to transmitter on Government Hill by means of a 465 MHz link.

D. Number of Positions?

5

E. Adequate? If not, why? How could it be improved?

No. Dispatchers need more training.

7. Sharing of System





A. Is your system currently being shared?

Yes.

B. Which parts and with whom?

System is all shared with Miles City Fire & Rescue.

8. What is good about your current system?

One central dispatch point with backup at Fire Dept.

9. What are the issues, problems, or challenges with your current system not already covered above?

System was new in 1976. It is outdated and has no digital capabilities or PL. Other agencies on same frequency interfere in radio traffic. System doesn't cover entire county. This leaves grass rigs out of contact with dispatch and the fire base.

10. What other agencies do you need to communicate with?

1. On a day-to-day (administrative) basis:

Miles City Fire & Rescue

2. On an emergency basis:

Custer County Road Dept., BLM, DNRC, Miles City Fire, Miles City Ambulance Service.

11. Please describe your radio communications during typical day-to-day (administrative) activities and during emergencies.

Reporting status of units.

12. List, in priority order, up to five (5) communications improvements needed from initial dispatch to call completion.

- **1.** After units are dispatched they soon lose radio contact with dispatch and fire base because of only one transmitter in county.
- **2.** County needs several repeaters to cover entire county.
- **3.** None of our equipment is P25 compatible.
- 4.
- 5.





- 13. List, in priority order, up to five (5) factors that will be critical to future radio system in your county, city, or area of jurisdiction.
 - **1.** Affordability
 - **2.** Flexibility
 - **3.** *Simplicity*
 - 4. Maintainability
 - **5.** *Reliability*
- 14. Please use this space to add any items or comments which you would like to make that have not been covered above.



Custer County Health Department.

5/11/05

Location of Agency:

1010 Main, Miles City

Person Present And Agencies/Entities Represented:

Jody Menyhart, RN

Questions

1. Number of Channels? Simplex or Duplex?

0

2. List the frequencies your agency currently uses and how each is used.

0

3. Coverage

A. Approximately what percentage of your jurisdictional area is adequately covered?

Not answered.

B. How acceptable is that coverage?

Not answered.

C. If unacceptable, why (Severe terrain, Gaps, Antenna Patterns, In-building Problems, etc.)?

Not answered.

D. If acceptable, would an improvement still be desired? Why?

Not answered.

E. Do you have mobile-to-mobile coverage countywide? If not, do you need it?





Not answered.

4. Current Loading

A. Number of Mobile Units:

Not answered.

B. Number of Portable Unit:

Not answered.

5. Any units currently P25 capable/enabled? Which ones?

Not answered.

6. Dispatch

A. How is dispatch conducted?

Not answered.

B. From where?

Not answered.

C. Hardware Used?

Not answered.

D. Number of Positions?

Not answered.

E. Adequate? If not, why? How could it be improved?

Not answered.

7. Sharing of System

A. Is your system currently being shared?





B. Which parts and with whom?

Not answered.

8. What is good about your current system?

Not answered.

9. What are the issues, problems, or challenges with your current system not already covered above?

Not answered.

- 10. What other agencies do you need to communicate with?
 - A. On a day-to-day (administrative) basis:

State Health Department (in general)

B. On an emergency basis:

State Health Department. Depends on emergency. We are a health department with a limited role in emergencies.

11. Please describe your radio communications during typical day-to-day (administrative) activities and during emergencies.

- 12. List, in priority order, up to five (5) communications improvements needed from initial dispatch to call completion.
 - 1. Not answered.
 - 2. Not answered.
 - 3. Not answered.
 - 4. Not answered.
 - **5.** Not answered.
- 13. List, in priority order, up to five (5) factors that will be critical to future radio system in your county, city, or area of jurisdiction.
 - 1. Not answered.
 - 2. Not answered.



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- 3. Not answered.
- 4. Not answered.
- **5.** Not answered.
- 14. Please use this space to add any items or comments which you would like to make that have not been covered above.





Custer County Road and Bridge

Date of Interview or Survey Completion:

05/04/2005

Location of Agency:

5125 Valley Drive E Miles City, MT 59301

Person Present And Agencies/Entities Represented:

Jerry Forman – Custer County Road Department

Questions

1. Number of Channels? Simplex or Duplex?

 $1 - \frac{1}{2}$ duplex

2. List the frequencies your agency currently uses and how each is used.

159.120 tx county road maintenance operations 156.240 rx

3. Coverage

A. Approximately what percentage of your jurisdictional area is adequately covered?

80%

B. How acceptable is that coverage?

Somewhat – it would be better if we had greater coverage.

C. If unacceptable, why (Severe terrain, Gaps, Antenna Patterns, In-building Problems, etc.)?

Mostly severe terrain

D. If acceptable, would an improvement still be desired? Why?





E. Do you have mobile-to-mobile coverage countywide? If not, do you need it?

Yes, at 80%, we would like 100%.

4. Current Loading

A. Number of Mobile Units:

15

B. Number of Portable Unit:

2

5. Any units currently P25 capable/enabled? Which ones?

No.

6. Dispatch

A. How is dispatch conducted?

There are no dispatchers in the office. Dispatching is from other vehicles or anyone in the shop who can relay information.

B. From where?

Not answered.

C. Hardware Used?

Two (2) Kenwood mobile radios with 12 vdc power supplies.

D. Number of Positions?

Not answered.

E. Adequate? If not, why? How could it be improved?

It would be nice to have an actual base station with remote microphones and speakers for the shop areas.

7. Sharing of System





A. Is your system currently being shared?

No.

B. Which parts and with whom?

Not answered.

8. What is good about your current system?

We have pretty fair coverage compared to what we use to have. Our radios are fairly new and reliable.

9. What are the issues, problems, or challenges with your current system not already covered above?

We do have some aging equipment problems. The mobile radios are not real user friendly.

10. What other agencies do you need to communicate with?

A. On a day-to-day (administrative) basis:

None.

B. On an emergency basis:

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County fire personnel. Sheriff – DES.
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11. Please describe your radio communications during typical day-to-day (administrative) activities and during emergencies.

Periodic directions or problem solving day-to-day.

Getting specific instruction from fire dept., IC, etc. in wild land fires. Perhaps sheriff in same condition or flood, etc.

12. List, in priority order, up to five (5) communications improvements needed from initial dispatch to call completion.

- **1.** County-wide mobile-to-mobile coverage with few or no gaps.
- **2.** Ability for radio users to easily change and use other frequencies.
- **3.**
- 4.



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5.

- 13. List, in priority order, up to five (5) factors that will be critical to future radio system in your county, city, or area of jurisdiction.
 - **1.** Reliability
 - 2. Affordability
 - **3.** *Simplicity*
 - 4.
 - 5.
- 14. Please use this space to add any items or comments which you would like to make that have not been covered above.





Custer County Rural Volunteer Fire Company (CCRVFC)

Date of Interview or Survey Completion:

Not answered.

Location of Agency:

Miles City Hall 2721 Main Street Miles City, MT

Kinsey Hall (behind Kinsey school) Kinsey MT

Person Present And Agencies/Entities Represented:

Michael A. Pretler, Chief, Custer County Rural Volunteer Fire Company

Questions

1. Number of Channels? Simplex or Duplex?

2 Channel Primary – simplex Tactical - simplex

2. List the frequencies your agency currently uses and how each is used.

Primary – 154.370 Tactical – SCARLET 154.295

3. Coverage

A. Approximately what percentage of your jurisdictional area is adequately covered?

40-50%

B. How acceptable is that coverage?

Not acceptable.

C. If unacceptable, why (Severe terrain, Gaps, Antenna Patterns, In-building Problems, etc.)?





Severe terrain, gaps, etc. No repeaters.

D.	If	acceptable	e, would	an	improvement st	till t	be de	sired?	Why	y?
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Not answered.

E. Do you have mobile-to-mobile coverage countywide? If not, do you need it?

No! Yes, we need coverage.

4. Current Loading

A. Number of Mobile Units:

6

B. Number of Portable Unit:

18 plus 4

5. Any units currently P25 capable/enabled? Which ones?

4 portable handhelds (see 4B above).

6. Dispatch

A. How is dispatch conducted?

Calls to 911, dispatcher then pages (tones-out) department with pertinent information to CCRVFC on primary ______.

B. From where?

Miles City dispatch center at the EOC.

C. Hardware Used?

Zetron.

D. Number of Positions?

1





E. Adequate? If not, why? How could it be improved?

Not answered.

7. Sharing of System

A. Is your system currently being shared?

Yes.

B. Which parts and with whom?

Not answered.

8. What is good about your current system?

Not answered.

9. What are the issues, problems, or challenges with your current system not already covered above?

Aging Equipment: No P25 compatibility with any mobile radios, base station, and 18 handheld radios.

We have no backup power system for our base station.

Note: Mobile radios are old and need to be replaced. Base station is 2 years old, but no P25.

10. What other agencies do you need to communicate with?

A. On a day-to-day (administrative) basis:

Dispatch - PSAP.

B. On an emergency basis:

Sheriff, DES, Miles City Fire, Ismay Fire, Miles City Police, Drug Task Force, BLM, HRHC Dispatch, County Health, Highway Patrol, DNRC.

11. Please describe your radio communications during typical day-to-day (administrative) activities and during emergencies.

Admin: 2-way with dispatch for page tests/inter-departmental communications with fire department personnel.





Emergencies: Page from dispatch to department primary frequencies. Fire department communications with dispatch (and inside the department) apparatus/handhelds, etc. Communication with other emergency agencies.

12. List, in priority order, up to five (5) communications improvements needed from initial dispatch to call completion.

- **1.** Encryption capabilities
- **2.** *Dispatch to mobiles and handhelds coverage (county-wide)*
- **3.** County-wide mobile to mobile coverage
- **4.** Paging to Units (currently calls are erratic at times and pages don't always come through clearly).

5.

13. List, in priority order, up to five (5) factors that will be critical to future radio system in your county, city, or area of jurisdiction.

- **1.** Affordability! We operate on a very limited budget and cannot afford to purchase P25 radios.
- **2.** *Maintainability: Having funds to upkeep radios, purchase batteries. We have to pay local radio shop to perform maintenance.*
- **3.** Reliability: The capability to have communications with dispatch and other agencies (coverage of county agencies).
- **4.** *Simplicity: Need the system to be easy to use and operate.*
- **5.** Education: A class to train all agencies about the system, how to interface, and what are the capabilities/shortfalls, etc.

14. Please use this space to add any items or comments which you would like to make that have not been covered above.

We have no repeaters so our coverage is poor. We would greatly appreciate coverage. This would enhance our abilities to communicate and provide better response, scene safety, etc.





Ismay Rural Fire District

Date of Interview or Survey Completion:

Not answered.

Location of Agency:

Northwest corner of Custer County

Person Present And Agencies/Entities Represented:

David Hoenke – Ismay Rural Fire District

Questions

1. Number of Channels? Simplex or Duplex?

1 Channel

2. List the frequencies your agency currently uses and how each is used.

1. IRFD - 154.2050, paging - all calls

- 3. Coverage
 - A. Approximately what percentage of your jurisdictional area is adequately covered?

50%

B. How acceptable is that coverage?

It is not.

C. If unacceptable, why (Severe terrain, Gaps, Antenna Patterns, In-building Problems, etc.)?

Terrain has a lot to do with it. No repeaters.

D. If acceptable, would an improvement still be desired? Why?

Not answered.

E. Do you have mobile-to-mobile coverage countywide? If not, do you need it?





No mobile to mobile coverage. Yes, it is needed.

4.	Current	Loading

A. Number of Mobile Units:

5

B. Number of Portable Unit:

19

- 5. Any units currently P25 capable/enabled? Which ones?
 - 4 portable units
- 6. Dispatch
 - A. How is dispatch conducted?

Not answered.

B. From where?

Miles City, Montana.

C. Hardware Used?

Not answered.

D. Number of Positions?

1

E. Adequate? If not, why? How could it be improved?

Not answered.

- 7. Sharing of System
 - A. Is your system currently being shared?

No.





	B. Which parts and with whom?
	Not answered.
8.	What is good about your current system?
	Not answered.
9.	What are the issues, problems, or challenges with your current system not already covered above?
	Not answered.
10	. What other agencies do you need to communicate with?
	A. On a day-to-day (administrative) basis:
	Not answered.
	B. On an emergency basis:
	Not answered.
11	. Please describe your radio communications during typical day-to-day (administrative) activities and during emergencies.
	Emergencies only.
12	List, in priority order, up to five (5) communications improvements needed from initia dispatch to call completion.
	 Repeater. Mobile to Mobile. 4.
	5.
13	List, in priority order, up to five (5) factors that will be critical to future radio system in your county, city, or area of jurisdiction.
	 Affordability 3.

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- 4.
- 5.
- 14. Please use this space to add any items or comments which you would like to make that have not been covered above.





Miles City Ambulance

Date of Interview or Survey Completion:

Not answered.

Location of Agency:

2800 Main Street Miles City, MT. 59301

Person Present And Agencies/Entities Represented:

Miles City Fire and Rescue

Questions

1. Number of Channels? Simplex or Duplex?

3 Simplex ½ Duplex

2. List the frequencies your agency currently uses and how each is used.

154.445 – Ambulance Dispatch 155.385 – Ambulance to Dispatch 155.280 – Ambulance to Hospitals

3. Coverage

A. Approximately what percentage of your jurisdictional area is adequately covered?

60%

B. How acceptable is that coverage?

Not acceptable.

C. If unacceptable, why (Severe terrain, Gaps, Antenna Patterns, In-building Problems, etc.)?

Because of terrain and no repeaters. Can lose contact with dispatch and hospital.

D. If acceptable, would an improvement still be desired? Why?



Not answered.

E. Do you have mobile-to-mobile coverage countywide? If not, do you need it?

No, do not have it. Yes, we do need mobile to mobile.

4. Current Loading

A. Number of Mobile Units:

4

B. Number of Portable Unit:

0

5. Any units currently P25 capable/enabled? Which ones?

No.

6. Dispatch

A. How is dispatch conducted?

Ambulance calls are dispatched on fire frequency to Miles City Fire and Rescue. Ambulance then contacts dispatch on 155.385 to confirm "in route".

B. From where?

Custer County court house.

C. Hardware Used?

Z-tron through 463 mhz line to EMS transmitter on Government Hill

D. Number of Positions?

5 – one at a time.

E. Adequate? If not, why? How could it be improved?

No. Dispatchers need more training. Equipment was new in 1976.





7. Sharing of System

A. Is your system currently being shared?

Yes

B. Which parts and with whom?

EMS channels are shared with Holy Rosary Health Care and surrounding ambulance services.

Mutual aid frequencies.

8. What is good about your current system?

Uses common state EMS frequencies.

9. What are the issues, problems, or challenges with your current system not already covered above?

The Bose transmitter was new in 1976 and has no P25 capabilities. No ability for encryption. Ambulance covers the entire county and radio coverage is limited.

Problems with talking to Broadus Ambulance coming up.

10. What other agencies do you need to communicate with?

A. On a day-to-day (administrative) basis:

Not answered.

B. On an emergency basis:

Holy Rosary Health Care, Police, Miles City Fire and Rescue, Billings hospitals, other ambulance services in Eastern Montana.

11. Please describe your radio communications during typical day-to-day (administrative) activities and during emergencies.

This radio is only used for emergency transmissions. It is used to give patient information to the hospitals and report status of call to dispatch.

12. List, in priority order, up to five (5) communications improvements needed from initial dispatch to call completion.



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- **1.** We need encryption capabilities to be in compliance with HIPPA regulations.
- **2.** We need repeaters around the county so the ambulance doesn't lose radio contact with dispatch and the hospitals.
- **3.** We need more mobile-to-mobile abilities out in the county when multiple ambulances and rescue trucks are dispatched.
- 4.
- 5.
- 13. List, in priority order, up to five (5) factors that will be critical to future radio system in your county, city, or area of jurisdiction.
 - **1.** Affordability
 - **2.** P25 compliance with encryption
 - 3. Reliability
 - **4.** Serviceability
 - **5.** *Simplicity*
- 14. Please use this space to add any items or comments which you would like to make that have not been covered above.





Miles City Fire and Rescue

Date of Interview or Survey Completion:

Not answered.

Location of Agency:

2800 Main Miles City, MT 59301

Person Present And Agencies/Entities Represented:

Miles City Fire and Rescue

Questions

1. Number of Channels? Simplex or Duplex?

14 – all simplex

2. List the frequencies your agency currently uses and how each is used.

154.440 – Fire and fire dispatch and ambulance dispatch 155.595 – Fire ground tactical 155.895/158.775 – Fire repeater (not in use yet) 155.280 – EMS to hospital 453.06250 – uplink to Government Hill transmitter. 458.06500 – uplink to Government Hill transmitter.

3. Coverage

A. Approximately what percentage of your jurisdictional area is adequately covered?

75%

B. How acceptable is that coverage?

Not acceptable.

C. If unacceptable, why (Severe terrain, Gaps, Antenna Patterns, In-building Problems, etc.)?

Severe terrain, large size of covered area.





D.	If acceptable.	would an	improvement	still be	desired?	Why?
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Not answered.

E. Do you have mobile-to-mobile coverage countywide? If not, do you need it?

No we do not have it. Yes we do need it – we cover the wild land fires.

4. Current Loading

A. Number of Mobile Units:

15

B. Number of Portable Unit:

35

5. Any units currently P25 capable/enabled? Which ones?

No.

6. Dispatch

A. How is dispatch conducted?

Through City-County EOC.

B. From where?

County court house.

C. Hardware Used?

Z-Tron console linked to our Government Hill transmitter

D. Number of Positions?

5

E. Adequate? If not, why? How could it be improved?

No. Dispatchers need more training.





7. Sharing of System

A. Is your system currently being shared?

Yes.

B. Which parts and with whom?

EMS channels shared with Miles City ambulance. Fire frequency shared with county fire for wild land.

8. What is good about your current system?

One central dispatch point with backup transmitter at fire hall.

9. What are the issues, problems, or challenges with your current system not already covered above?

We need repeaters put in the county to enable complete coverage. Current equipment was new in 1976. Not capable of encryption and does not cover the total county.

10. What other agencies do you need to communicate with?

A. On a day-to-day (administrative) basis:

Police Department, Mt Highway Patrol

B. On an emergency basis:

Police, MHP, Custer County Rd dept, Miles City Ambulance, Custer County Sheriff Dept., Holy Rosary Health care.

11. Please describe your radio communications during typical day-to-day (administrative) activities and during emergencies.

Very little administration. Emergency: fire dispatch, in city, wild fire dispatch, ambulance dispatch.

12. List, in priority order, up to five (5) communications improvements needed from initial dispatch to call completion.



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- **1.** There is a need for repeaters in the county to enable county-wide mobile-to-mobile and mobile to bose communications.
- **2.** *Entire system is very old no PL or digital capabilities.*
- 3. No encryption capabilities.
- 4.
- 5.
- 13. List, in priority order, up to five (5) factors that will be critical to future radio system in your county, city, or area of jurisdiction.
 - **1.** Affordability
 - **2.** Flexibility
 - **3.** *Simplicity*
 - **4.** *Maintainability*
 - **5.** *Reliability*
- 14. Please use this space to add any items or comments which you would like to make that have not been covered above.



4.1.5.3 County Concerns or Issues

1. Communications Improvements

The following pie chart depicts the communications improvements desired by the responding stakeholders in this county:

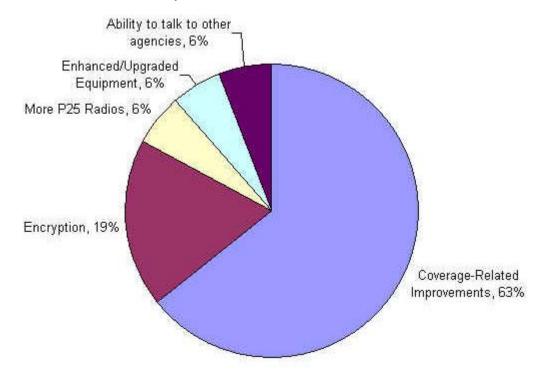


Figure 6 – Communications Improvements, Custer County

How to read this chart:

Stakeholders were asked to list, in priority order, the top five communications improvements they would like to see. Those items ranked higher were given a higher point value than those ranked lower. A percentage was then calculated. If the chart contains less than five "wedges," this means the stakeholders did not list the full five possible items.

2. Success Factors

The following chart depicts the success factors considered critical by the responding stakeholders in this county in order for the Eastern Tier radio project to be successful.

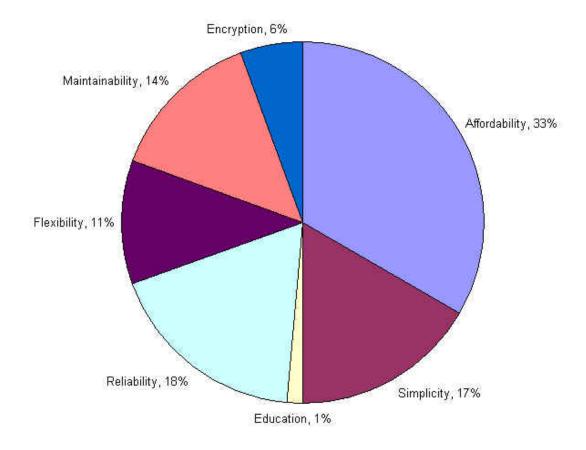


Figure 7 – Critical Success Factors, Custer County

How to read this chart:

Stakeholders were asked to list, in priority order, the top five factors they felt were most necessary for the Eastern Tier radio project to be successful. Those items ranked higher were given a higher point value than those ranked lower, in order to give higher-ranked items more weight. A percentage for each item was then calculated. If the chart contains less than five items ("wedges"), this indicates the stakeholders did not list the full five possible items.

Some of the same items often appear in both the communications improvements chart and the critical success factors chart. This indicates that these items are very important to the stakeholders.

3. Major Dead Spots

- A. North of the Yellowstone River. "Above the ridge" (of the Yellowstone River valley).
- B. From the east-central portion of the county to the southeast portion of the county.
- C. Far eastern portion of the county near Ismay.

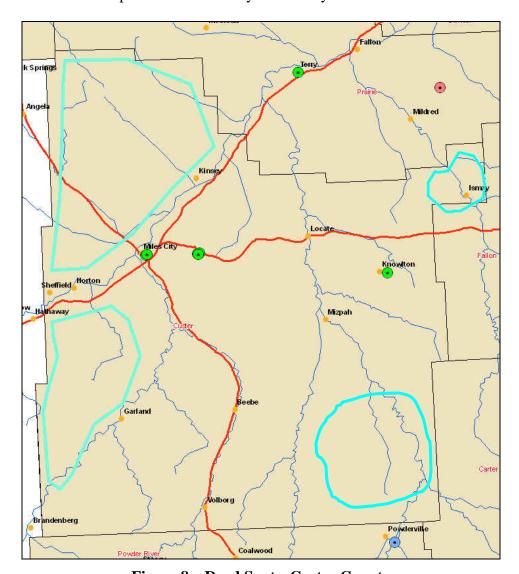


Figure 8 – Dead Spots, Custer County

Note: Location of "dead spots" is very approximate. In addition, some areas within the dead spots will have better reception than others.

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4. Turf Battles

Custer County has historically been plagued with turf battles. These have eased somewhat over the years, but were still felt to be affecting the county's ability to effectively respond to an emergency.

